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## IN THE CLAIMS



- 1. (currently amended) A system for noise reduction from an air-moving device, comprising:
- a shroud having an inner surface disposed around an area defining an airflow;
- at least one outer barrel connected to the shroud, the outer barrel having an inner and outer surface extending from the shroud inner surface further defining the airflow;
- at least one inner noise silencer disposed in the airflow, said at least one inner noise silencer having at least one cavity and at least one opening communicating with said at least one cavity; and
- at least one outer noise silencer comprising at least one hollow cavity tuned to attenuate predetermined noise frequency ranges within the airflow, the at least one outer noise silencer connected to the airflow by at least one opening of a predetermined size through the outer barrel.
- 2. (previously amended) The system of claim 1 wherein the at least one outer noise silencer is attached to the outer barrel outer surface.

3. (previously amended) The system of claim 1 wherein the

at least one outer noise silencer is attached to the shroud.

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- 4. (previously amended) The system of claim 1 further comprising stator members attached on the outer barrel inner surface.
- 5. (previously amended) The system of claim 1 wherein the at least one outer barrel extends downstream of the air-moving device.
- 6. (previously amended) The system of claim 1 wherein the at least one outer barrel extends upstream of the air-moving device.
- 7. (previously amended) The system of claim 1 wherein the at least one outer barrel extends both upstream and downstream of the air-moving device.
  - 8. (previously amended) The system of claim 1 wherein the at least one outer noise silencer is a Helmholtz resonator.
  - 9. (previously amended) The system of claim 1 wherein the at least one outer noise silencer is a broadband silencer.
    - 10. (previously amended) The system of claim 1 wherein the

at least one outer noise silencer is a narrowband silencer.

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- 11. (previously amended) The system of claim 1 wherein said at least one outer noise silencer comprises a plurality of noise silencers for both narrowband and broadband application.
- 12. (previously amended) The system of claim 1 wherein said at least one outer noise silencer comprises a plurality of noise silencers arranged in a parallel configuration.
- 13. (previously amended) The system of claim 1 wherein said at least one outer noise silencer comprises a plurality of noise silencers arranged in a series configuration.
- 14. (previously amended) A system for noise reduction from a plurality of axial flow fans, comprising:
  - a shroud having an inner surface;
- a plurality of outer barrels accommodating the plurality of axial flow fans, respectively, and connected to the shroud, the outer barrels each having an inner and outer surface extending from the shroud inner surface and further defining a corresponding airflow; and

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at least one noise silencer comprising at least one hollow cavity tuned to attenuate predetermined noise frequency ranges within the corresponding airflow, the at least one noise silencer connected to the corresponding airflow by at least one opening of a predetermined size through a corresponding one of the plurality of outer barrels.

- 15. (previously amended) The system of claim 1 wherein the cavity further comprises a sound absorbing material.
- 16. (original) The system of claim 15 wherein the sound absorbing material is steel wool.
- 17. (currently amended) A system for noise reduction from an air-moving device, comprising:
- a shroud having an inner surface disposed around an area defining an airflow;
- at least one outer barrel connected to the shroud, the outer barrel having an inner and outer surface extending from the shroud inner surface further defining the airflow;
- an inner barrel with <u>at least one cavity and</u> at least one noise silencer opening attached to the air-moving device; and

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at least one outer noise silencer comprising at least one hollow cavity tuned to attenuate predetermined noise frequency ranges within the airflow, the at least one outer noise silencer each connected to the airflow by at least one opening of a predetermined size through the outer barrel.

- 18. (previously amended) The system of claim 1 wherein the at least one outer noise silencer further comprises at least one pipe disposed between the opening through the outer barrel and the hollow cavity.
- 19. (original) A method for reducing noise from an air-moving device, comprising the steps of:

creating an airflow through a shroud and outer barrel; communicating air from the airflow within the barrel to a cavity with an opening; and

reducing airflow noise by resonating an air plug present in the opening forming a mass that resonates on a support of a spring force formed by the air enclosed in the cavity.

20. (previously amended) The method of claim 19 further comprising the step of redirecting the airflow using stator members.



21. (previously amended) An article of manufacture for reducing noise from an air-moving device, comprising:

a shroud having an inner surface disposed around an area defining an airflow;

at least one outer barrel connected to the shroud, the outer barrel having an inner and outer surface extending from the shroud inner surface further defining the airflow;

at least one noise silencer comprising at least one hollow cavity tuned to attenuate predetermined noise frequency ranges within the airflow, the noise silencer connected to the airflow by at least one opening of a predetermined size through the outer barrel; and

at least one generally spiral pipe disposed between the opening through the outer barrel and the hollow cavity.

- 22. (previously added) The article of manufacture of claim 21 wherein the at least one noise silencer is a Helmholtz resonator.
- 23. (previously added) The article of manufacture of claim 21 wherein the at least one noise silencer is a broadband silencer.



- 24. (previously added) The article of manufacture of claim 21 wherein the at least one noise silencer is a narrowband silencer.
- 25. (previously added) The system of claim 21 wherein the at least one noise silencer comprises a plurality of noise silencers for both narrowband and broadband application.
- 26. (previously added) The system of claim 14 wherein the at least one noise silencer is a Helmholtz resonator.
- 27. (previously added) The system of claim 14 wherein the at least one noise silencer is a broadband silencer.
- 28. (previously added) The system of claim 14 wherein the at least one noise silencer is a narrowband silencer.
- 29. (previously added) The system of claim 14 wherein the at least one noise silencer comprises a plurality of noise silencers for both narrowband and broadband application.
- 30. (currently amended) The system of claim 17 wherein the at least one <u>outer</u> noise silencer <u>is comprises</u> a Helmholtz resonator.

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- 31. (currently amended) The system of claim 17 wherein the at least one <u>outer</u> noise silencer is a broadband silencer.
- 32. (currently amended) The system of claim 17 wherein the at least one outer noise silencer is a narrowband silencer.
- 33. (currently amended) The system of claim 17 wherein the at least one <u>outer</u> noise silencer comprises a plurality of noise silencers for both narrowband and broadband application.
- 34. (currently amended) An article of manufacture for reducing noise from an air-moving device, comprising:
- a shroud having an inner surface disposed around an area defining an airflow;
- at least one generally cylindrical outer barrel connected to the shroud, the outer barrel having an inner and outer surface extending from the shroud inner surface further defining the airflow;
- at least one noise silencer comprising at least one hollow cavity tuned to attenuate predetermined noise frequency ranges within the airflow, the noise silencer connected to the airflow by at least one opening of a predetermined size through the outer barrel; and

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at least one pipe extending radially between <u>and communicating with</u> the opening through the outer barrel and the hollow cavity.

- 35. (previously added) An article of manufacture for reducing noise from an air-moving device, comprising:
- a shroud having an inner surface disposed around an area defining an airflow;

at least one outer barrel connected to the shroud, the outer barrel having an inner and outer surface extending from the shroud inner surface further defining the airflow;

at least one noise silencer comprising at least one hollow cavity tuned to attenuate predetermined noise frequency ranges within the airflow, the noise silencer connected to the airflow by at least one opening of a predetermined size through the outer barrel; and

at least one pipe disposed between the opening through the outer barrel and the hollow cavity and extending generally parallel to the airflow.